

Abstract

The present invention describes the use of red, green and, if necessary, blue dopants dispersed in a universal host material as the active emitting layer in OLEDs. The universal host is transparent in the visible region, and may be emissive in the blue region when used as the blue emitting species or possesses carrier transport properties. By dispersing the dopants in the universal host, efficient energy transfer from host to guest and/or direct carrier recombination on the dopant takes place resulting in bright red, green or blue emission, depending on the dopant. The resulting spectra are characteristic of the guest molecules.